

## Varieties of Cereal and Oilseed Crops for Alberta - 1989

Prepared by the Cereal and Oilseed Advisory Committee of the Alberta Agriculture Co-ordinating Committee

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### Explanatory

This publication provides information on individual varieties and indicates cereal and oilseed production areas within the province. Important agronomic characteristics are given in tabular form for varieties of wheat, oats, barley, flax, canola, and rye. The production areas, based primarily upon precipitation and length of growing season, are indicated on the map. With this information farmers can choose varieties that may be best suited to their own particular farming programs. The varieties are tested under medium management conditions and may change their response if tested under very high or very low management.

### Yields

The tables show relative yields for six production areas. In area 1, irrigated yields expressed as a per cent of dryland yields are: C.W. Wheat 185, barley 160, oats 180, flax 210, canola 125. In area 2, irrigated yields expressed as a per cent of dryland yields are: C.W. wheat 130, barley 125, oats 120, flax 145, canola 120.

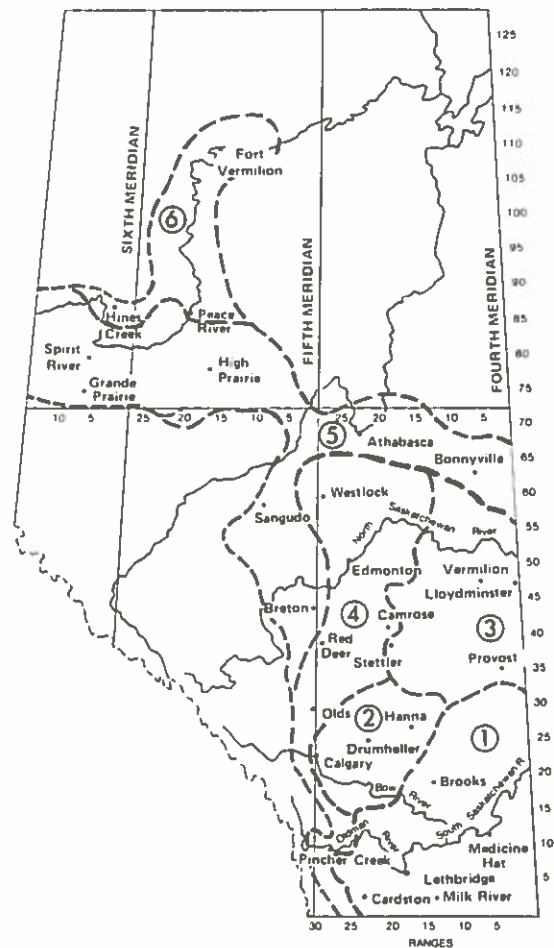
### Maturity

The relative classifications refer specifically to the crop being considered. For example, an early-maturing wheat variety could require more days to reach maturity than a late-maturing variety of barley.

In areas 2, 3, and 5 of Alberta the following may be used as a guide for estimating maturity in actual days from seeding to harvest when the crops are seeded on fallow land: Neepawa wheat - 120 days, Park - 116, Grizzly oats - 114, Random - 107, Galt barley - 105, Otal - 94, McGregor flax - 130, Noralta - 117, Westar canola - 112, and Tobin - 95 days. In area 6 the longer daylight hours usually reduce the number of days to maturity required. Area 4 has the longest requirement in the province for days to maturity. In southern Alberta, Neepawa can be expected to mature in 100 to 105 days and other crops are similarly earlier maturing. The comparisons among varieties within crops, however, tend to remain fairly uniform regardless of where the crops are grown.

### Disease, seed treatment

- Seed of rye and flax should be treated to control seedling blight and seed of canola to control flea beetles, seedling blight and the seedborne phase of virulent blackleg.
- Cereal smuts can be controlled with systemic seed treatment fungicides. See Alberta Agriculture publication *Seed Treatment of Cereal and Oilseed Crops* Agdex 100/632.
- Treated seed must not be fed to livestock or poultry or sold for feed. Refer to label for maximum period for storing treated seed. Storage periods for fungicide-insecticide combination products are fairly short. Small quantities of excess seed can be buried. Do not expose treated seed to wildlife!



### Good seed

- In relation to total farm input expenses, the cost of GOOD SEED, a most important production factor, is very small.
- The only way to be absolutely sure of obtaining a particular variety is by the use of PEDIGREED SEED.
- Pedigreed seed may be purchased in bulk from authorized suppliers.

The Alberta Cereal and Oilseed Advisory Committee coordinates the findings of the various research institutions in Alberta and in this publication describes those varieties that are suited for production in Alberta. The committee is comprised of representatives from the University of Alberta, Agriculture Canada, Canadian Seed Growers Association, Canadian Seed Trade Association and Alberta Agriculture.

For more detailed information consult your district agriculturist.

## COMPARISON OF VARIETIES

WHEAT													
Variety	Irr. 1&2	Area (See Map)						Relative Maturity	Resistance to:			Common Root Rot	
		1	2	3	4	5	6		Lodging	Shattering	Loose Smut		Bunt
Yield as % of Neepawa						ELIGIBLE FOR C.W. RED SPRING WHEAT GRADES							
Columbus	94	98	99	96	97	99	99	Med-late	Good	Good	Fair	V. Good	Fair
Conway	100	98	102	97	99	102	102	Medium	Good	Good	Fair	Fair	Fair
Katepwa	101	100	99	96	98	97	94	Medium	Good	Good	Good	Good	Fair
Kenyon	101	98	103	95	99	100	97	Medium	Good	Good	Fair	Good	Fair
Lancer	95	94	95	85	—	—	—	Med-late	Poor	Good	Good	Good	Fair
Leader	93	95	100	97	—	—	—	Med-late	Good	Good	Fair	Good	Poor
Neepawa	100	100	100	100	100	100	100	Medium	Good	V. Good	Good	Fair	Fair
Park	—	—	90	88	87	94	95	Med-early	Good	Good	Good	Fair	Fair
REMARKS: LEADER and LANCER - recommended for sawfly areas only. COLUMBUS - late maturing in Areas 3, 4, 5 and 6. NEEPAWA - difficult to thresh. PARK - subject to head discoloration with yield loss. C.W. Red Spring Wheat grown under irrigation tends to have lower grades. COLUMBUS and LEADER have sprouting resistance. Insufficient data is available for LAURA and ROBLIN.													
Yield as % of HY320						ELIGIBLE FOR CANADA PRAIRIE SPRING WHEAT GRADES							
HY320	100	100	100	100	100	—	—	V. Late	Good	Good	Poor	Poor	Poor
Oslo	74	78	80	71	84	XX	XX	Medium	Excel.	Good	Poor	Fair	Poor
REMARKS: HY320 and Oslo - semi-dwarf varieties, requiring a systemic fungicide seed treatment. HY320 may yield 30% higher than Neepawa. OSLO - less drought tolerant than HY320.													
Yield as % of Fielder						ELIGIBLE FOR C.W. SOFT WHITE SPRING WHEAT GRADES							
Fielder	100	—	—	—	—	—	—	Late	Good	Fair	Poor	Poor	Poor
Owens	105	—	—	—	—	—	—	Late	Fair	Good	Poor	Poor	Good
REMARKS: OWENS is the only variety resistant to stripe rust. FIELDER and OWENS - semi-dwarf varieties.													
Yield as % of Wakooma						ELIGIBLE FOR C.W. AMBER DURUM WHEAT GRADES							
Arcola*	106	100	103	—	—	—	—	Medium	Fair	Good	Fair	V. Good	Poor
Coulter*	106	97	100	98	—	—	—	Medium	Fair	Good	Poor	V. Good	Fair
Kyle	100	107	96	106	—	—	—	Late	Poor	Good	Fair	V. Good	Fair
Medora	104	100	98	97	—	—	—	Med-late	Good	Good	Poor	V. Good	Fair
Sceptre	107	103	114	102	—	—	—	Medium	Good	Good	Poor	V. Good	Fair
Wakooma	100	100	100	100	—	—	—	Med-late	Poor	Good	Fair	V. Good	Fair
REMARKS: KYLE, MEDORA, WAKOOMA - should be grown only in Area 1 and 2 and the southeastern portion of Area 3 because of late maturity. WAKOOMA yields about 9% more than Neepawa in areas of adaptation. SCEPTRE - Best smudge resistance.													
Yield as % of Norstar						ELIGIBLE FOR ALBERTA RED WINTER WHEAT GRADES							
Norstar	—	100	XX	XX	—	—	—	Early	Fair	Good	Poor	Poor	Fair
Norwin	XX	102	—	—	—	—	—	Early	Fair	Fair	XX	V. Poor	XX
REMARKS: Varieties listed with winter hardiest at the top. Winter survival is best in southwestern Alberta. Norwin - has very short straw, hardiness about equal to Winalta, erratic yields.													

Symbols used in Tables

\* Variety may not be described in 1990; — Denotes variety not generally suited to area; XX Denotes no data available

BARLEY										Resistance to:								
Variety	Area (See Map) Yield as % of Galt							Relative Maturity	No. of Rows	Awn Type	Test Weight†	Kernel Weight††	Lodg- ing	Shatter- ing and Neck Break	Loose Smut	False Loose & Covered Smut	Com- mon Root Rot	Scald
	Irr. 1&2	1	2	3	4	5	6											
<b>ELIGIBLE FOR GENERAL PURPOSE GRADES ONLY</b>																		
Abee	88	108	101	102	99	105	101	Late	2	Rough	65	43	Good	Good	Poor	Fair	Fair	Fair
Deuce	99	107	95	96	93	102	92	Medium	2	Rough	65	42	Excel.	Good	Poor	Good	Fair	Fair
Diamond*	102	106	106	105	102	104	99	Medium	6	Semi-smooth	58	43	Good	Fair	Poor	Good	Poor	Good
Empress*	95	92	100	100	100	102	101	Medium	6	Rough	60	37	Good	Good	Poor	Poor	Fair	Fair
Galt	100	100	100	100	100	100	100	Medium	6	Semi-smooth	60	37	Good	Fair	Poor	Good	Poor	Fair
Heartland	107	105	108	103	109	104	102	Medium	6	Smooth	60	36	Good	Fair	Fair	Poor	Fair	Fair
Jackson	—	—	—	—	91	93	94	Early	6	Rough	62	38	Good	Good	Poor	Poor	Fair	Poor
Johnston	92	108	107	118	103	117	111	Late	6	Smooth	61	36	Poor	Good	Poor	Poor	Poor	Fair
Leduc	105	100	105	107	100	106	98	Medium	6	Rough	59	41	Fair	Good	Fair	Good	Poor	Fair
Noble	106	117	107	108	106	105	106	Medium	6	Smooth	59	38	Good	Fair	Poor	Fair	Poor	Fair
Otal	—	—	—	—	85	89	88	Early	6	Rough	62	34	Poor	Poor	Poor	Fair	Poor	Fair
Virden	110	117	114	109	106	117	106	Late	6	Smooth	58	43	Good	Good	Poor	Fair	Fair	Poor
<b>SEMI-DWARF</b>																		
Duke	115	108	109	103	106	106	104	Late	6	Rough	60	38	Excel.	Fair	Poor	Fair	Fair	Good
Samson	102	97	103	98	104	95	98	Late	6	Rough	59	36	Excel.	Good	Poor	Fair	Fair	Poor
Winchester	105	100	104	93	96	97	97	Medium	6	Smooth	60	41	Excel.	Good	Poor	Good	Fair	Good
<b>HULLESS</b>																		
Scout	73	77	73	81	81	80	79	Medium	2	Rough	71	39	Fair	Good	Poor	Poor	Poor	Poor
Tupper	86	85	87	86	80	86	85	Medium	6	Rough	69	34	Good	Good	Fair	Poor	Poor	Poor
<b>ELIGIBLE FOR MALTING GRADES</b>																		
Argyle	91	94	94	103	97	96	95	Medium	6	Smooth	60	35	Good	Fair	Fair	Poor	Good	Poor
Bonanza	94	95	94	102	95	92	93	Medium	6	Smooth	60	36	Good	Fair	Fair	Poor	Fair	Poor
Conquest*	87	88	88	96	88	87	84	Medium	6	Smooth	60	37	Good	Poor	Fair	Fair	Fair	Poor
Ellice	94	97	97	95	93	102	99	Med-late	2	Rough	63	42	Good	Fair	Fair	Poor	Poor	Poor
Harrington	95	100	96	97	93	104	97	Medium	2	Rough	63	43	Good	Fair	Poor	Poor	Fair	Poor
Klages	82	95	90	98	84	104	101	Late	2	Rough	64	43	Good	Fair	Poor	Good	Fair	Poor

REMARKS: Smuts can be controlled with systemic seed treatment fungicides. Semi-dwarfs respond to high levels of management and can yield up to 50 per cent more than Galt. ARGYLE, CONQUEST, DIAMOND, OTAL and TUPPER show primarily head breakage while the other varieties show primarily kernel shattering. HARRINGTON has poor net blotch resistance. VIRDEN — seed supply limited in 1989. HARRINGTON has poor net blotch resistance. Multiply kg/ha by 0.8 to get pounds per bushel. † kg/ha, †† g/1000 kernels.

OATS										Resistance to:		
Variety	Area (See Map) Yield as % of Cascade							Relative Maturity	Lodg- ing	Shatter- ing	Smuts	Remarks
	Irr. 1&2	1	2	3	4	5	6					
Athabasca	85	81	80	81	87	83	80	Early	Good	Fair	Poor	Plump kernels
Calibre	101	106	100	96	100	98	94	Late	Good	Good	Poor	Thin hull, plump kernels
Cascade	100	100	100	100	100	100	100	Med-late	Good	Good	Poor	Kernels similar to Random
Dumont*	95	102	97	93	92	92	92	V. Late	Fair	Good	Good	Excellent disease resistance
Foothill	88	93	85	91	83	87	85	Late	Good	Good	Poor	Forage variety
Grizzly	93	88	90	90	92	94	91	Late	Fair	Good	Poor	Plump kernels
Harmon	91	91	89	91	88	89	83	Med-late	Good	Good	Fair	Plump kernels, dehulls readily
Jasper	92	93	95	93	88	92	86	Early	Fair	Good	Poor	Thin hull, high protein
Random*	93	93	94	90	89	87	87	Med-early	Good	Good	Poor	Short straw, long large kernels
<b>HULLESS</b>												
Terra	80	70	69	73	77	76	75	Early	Good	Good	Poor	
Tibor	61	57	55	53	49	50	48	Med-late	Good	Good	Good	High protein

NOTE: RIEL - seed available, insufficient data to describe. TIBOR, TERRA - seed supply limited in 1989.

OTHER CEREAL CROPS
SPRING RYE - GAZELLE - only available spring variety and has maturity similar to Neepawa wheat.
OTHER WHEATS - BLUESKY, WILDCAT - eligible for Utility Wheat Grades only, yield 5% - 10% above Neepawa, and maturity similar to Neepawa.
WINTER TRITICALE - DECADE, TRILLIUM, WINTRI - winter varieties - yield similar to Norstar but 5 - 10% lower winter survival.

Symbols used in tables: \* Variety may not be described in 1990. — Denotes variety not well suited to the area.

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SPRING TRITICALE														
Area (See Map)								Resistance to:						
Variety	Irr. 1&2	1	2	3	4	5	6	Test Weight kg/hl	Relative Maturity	Lodging	Shattering	Loose Smut	Bunt	Common Root Rot
Carman	100	100	100	100	100	—	—	60	V.late	Good	Good	Good	Good	Poor
Wapiti	105	107	116	106	117	—	—	62	V.late	Good	Good	Good	Good	Fair

REMARKS: CARMAN, WAPITI - late maturing and should not be grown for seed production in areas 5 and 6. CARMAN - average yield is 10% greater than Neepawa. FRANK - no seed available in 1989. Multiply kg/hl by 0.8 to get pounds per bushel.

FALL RYE												
Area (See Map)								Relative Maturity	Test Weight	Straw Strength	Stem Smut	
Variety	Irr. 1&2	1	2	3	4	5	6					
								Musketeer	—	122	102	XX
Cougar	—	98	XX	XX	90	98	99	Late	Good	Good	Poor	
Prima	—	125	102	XX	103	107	XX	Late	Good	Fair	Good	
Kodiak	—	100	100	XX	100	100	100	Late	Poor	Fair	Good	

REMARKS: COUGAR - has shortest straw, susceptible to seedling blight - use of treated seed can improve yields. Stem smut - use systemic fungicides in high risk areas on all varieties. Varieties listed with winter hardiest at the top.

FLAX											
Area (See Map)								Relative Maturity	Seed Size	Rust Resistance	
Variety	Irr. 1&2	1	2	3	4	5	6				
								Dufferin	97	96	86
McGregor	116	106	105	116	101	—	—	Late	Medium	Good	
Noralta	100	100	100	100	100	100	100	Early	Small	Poor	
NorLin	114	98	107	96	106	94	102	Medium	Medium	Good	
NorMan	94	96	93	96	102	—	—	Med-late	Medium	Good	
Vimy	95	108	99	85	104	—	—	Med-late	Large	XX	

CANOLA											
Area (See Map)								Relative Maturity	Straw Length	Remarks	
Variety	Irr. 1&2	1	2	3	4	5	6				
								<b>POLISH TYPE (<i>B. campestris</i>)</b>			
Tobin	100	100	100	100	100	100	100	Early	Medium	Mixed yellow and brown seed	
<b>ARGENTINE TYPE (<i>B. napus</i>)</b>											
Global	149	—	—	—	—	—	—	Late	V.Long	V.Strong straw	
Pivot	142	—	—	—	—	—	—	Late	Long	Strong staw	
Tribute	85	76	84	108	87	102	103	Med-late	Long	Triazine resistant	
Triton*	96	XX	91	99	78	107	91	Late	Long	Triazine resistant	
Westar	135	114	119	145	110	156	132	Med-late	Long		

REMARKS: Polish type 2-3 weeks earlier than Argentine type. Argentine type shatter more readily than Polish when ripe, require early seeding in Areas 4,5 and 6. Argentine canola is very risky in Areas 5 and 6 because of late maturity. Mixtures of canola and mustard are inseparable and unacceptable. Triazine resistant varieties have low quality. COLT, LEGEND, ALTO, STELLAR and HORIZON - insufficient data to describe. TO PREVENT THE SPREAD OF VIRULENT BLACKLEG TO YOUR FARM, ONLY USE CERTIFIED BLACKLEG FREE AND TREATED SEED.

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 — Denotes variety not generally suited to area  
 XX Denotes no data available